DELLTechnologies

15-Minute Guide

Unlock the value of your data capital with analytics.

Abstract

Today, data is everywhere, and it holds tremendous value. Analytics can help your organization make big decisions and bold moves based on data-driven insights.

However, unlocking the full potential of your data requires creating a data-first culture that aligns with business objectives, optimizing infrastructure so you can put any data to work anywhere, any way and at any scale.

In this guide we share the Dell Technologies approach to attuning your organization to your data to create — and act on — new opportunities using analytics.

April 2022

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463 exabytes
of data will be produced
daily by 2025.[1]

7 out of 10
IT leaders actively take
a data-driven approach
to decision making.[1]

30%
annual growth
is experienced
by data-driven
organizations.[1]

Simplify, protect and create more value from data.

Accelerate data-driven outcomes.

Today, data is your most valuable asset. Data capital, or the value derived from data, is the ultimate source of differentiation. Digital transformation initiatives center on the ability to capitalize on data, with the winners and losers in today's data-driven marketplace defined by their ability to capture and act on data quickly.

However, as the data landscape grows, it can actually limit your ability to leverage data and manage it effectively. To fully unlock the value of data capital, attention must be paid to where data resides, how it is managed and how it's protected. This allows IT to focus less effort on day-to-day management and more on becoming a source of innovation that uses data to strengthen and differentiate the business.

Dell Technologies can help you unlock the value of your data capital with a solution portfolio that encompasses a wide selection of options, purpose-built for today's top data transformation goals. As part of that portfolio, Dell Validated Designs for Analytics are engineering-tested to simplify deployment and operation of analytics projects to enhance the value of your data capital while helping you maintain data protection and security.

Dell Technologies is committed to helping you successfully leverage more data with powerful analytics solutions that will enable you to reimagine customer experiences, products/services and business models.

[1] Accenture, Why you need to capitalize on the rise of the data-driven enterprise, May 2021.

Modernize and transform to unlock data value.

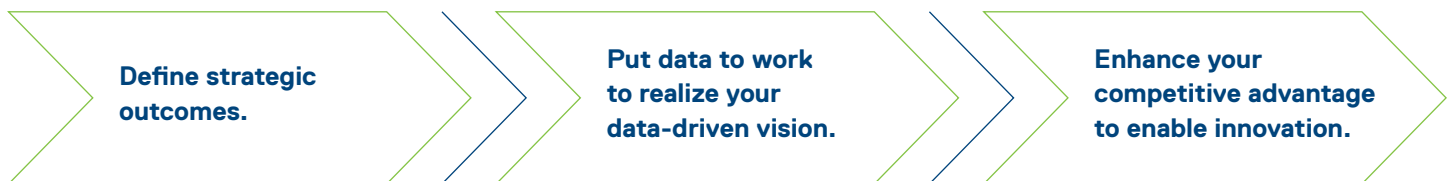**A data-first approach is the key to success.**

Data insights are fundamentally changing how businesses operate, redefining the way people work and transforming industries globally. Using analytics to fuel better decisions across marketing, finance, operations, sales, supply chain, services, human resources and more is a transformational opportunity. Organizations need to capitalize on the opportunity with intelligent infrastructure, compute, software algorithms and a data-first approach to realize its full potential.

However, this comes with its own set of challenges.

To unleash data-driven opportunities across the enterprise, data scientists and data analytics teams need the freedom to explore new use cases and extend existing ones without concern for the underlying IT infrastructure. Providing these teams with a starting point that's ready to "just add data" lays the foundation for sharing knowledge and reusing models to spark innovation faster and more efficiently across the entire organization.

Unfortunately, many organizations lack the internal skills and resources to design, deploy and manage these types of solutions. Dell Technologies can help accelerate your digital transformation, with modern analytics solutions at any scale, so teams can focus on creating measurable value.

Make a plan to get the full benefits of analytics.

Define strategic outcomes.	Put data to work to realize your data-driven vision.	Enhance your competitive advantage to enable innovation.

- **Define strategic outcomes.** Analyze your existing technology landscape and form a sound strategy for using analytics to solve your unique business challenges. This may involve education and training to address skill gaps.

- **Put data to work to realize your data-driven vision.** Find a partner who can help you develop and deploy powerful, cost-effective analytics solutions that are optimized for your use cases, scalable for future needs and supported with continued enhancement to keep you on the leading edge.

- **Enhance your competitive advantage to enable innovation.** Evolve your vision as use cases change, data grows and demands increase. By harnessing the power of analytics everywhere, you can leverage past successes to create new competitive advantages.

How you can benefit from the transformative power of data

Dell Technologies is dedicated to unlocking the value of data capital. Our portfolio of products and solutions for analytics is designed to get data-driven insights into the hands of organizations of all sizes so that more people can harness the power of data to advance business objectives.

Duos Technologies: Reducing costs and keeping rail traffic moving

Duos Technologies® Group helps keep trains moving with automated railcar inspection capabilities. The company processes 1.3TB of data daily at each edge inspection site to reduce inspection times to eight minutes. This represents a 120:1 improvement over manual inspection and saves the rail companies $3,000 per instance. With thousands of locomotives pulling millions of railcars across North America, the impact of advanced edge analytics capabilities is substantial.

Epsilon: Enabling smarter and faster marketing
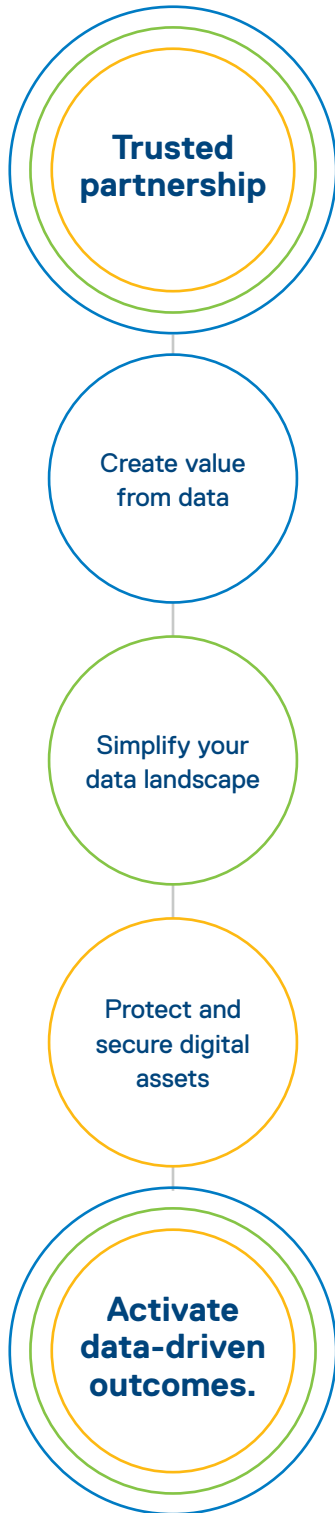
Epsilon® is the digital powerhouse behind the marketing and loyalty programs of many Fortune 500 companies. Everything Epsilon does is centered around data and the quest to get the right message to the right person at the right time. To accomplish this mission, Epsilon makes use of predictive analytics running on Dell PowerEdge servers.

Mastercard: Protecting against fraud

Mastercard® is among the many payment-processing companies fighting back against fraud every second of every day. To identify and stop fraudulent transactions, Mastercard needs to process large data sets at unprecedented speeds. This lightning-fast user verification is enabled by Dell Validated Designs.

Trintech: Supporting 3X revenue and customer growth

Trintech® started a digital transformation journey with Dell Technologies that enabled the company to triple customers and revenue while recognizing a 700% increase in IOPS. Plus, the company was able to spin up new global data centers in just hours, instead of months.

Trusted partnership

Create value from data

Simplify your data landscape

Protect and secure digital assets

Activate data-driven outcomes.

The journey to becoming data-driven starts with analytics.

Adopting, expanding and evolving analytics requires a commitment to ongoing digital transformation and the expert partnerships to help you get there.

Create value from data.

Data is critical to every aspect of running a modern business. To attract and retain customers and outpace the competition, decision makers need metrics they can use to make the right business decisions. Data architects, analysts and scientists need fast, concurrent access to analytics results based on data from every corner of the business.

Dell Validated Designs for Analytics help you turn your data into a tangible asset and source of revenue. You can go from managing infrastructure to using data to power your digital business. Dell Technologies customers report they have been able to triple customers and revenue,[2] save hundreds of millions of dollars,[3] and collect and process 100,000 data points per second to rapidly test engineering designs without costly physical prototyping.[4] Using Dell APEX Cloud Services enables you to place your data in the optimal location to reduce costs and enhance access.

Collect and process 100,000 data points per second.

Simplify your data landscape.

The data avalanche, coupled with opportunities for insight and automation, means groups will continue to request different analytics environments. Those same teams may also want to experiment with artificial intelligence (AI) and machine learning (ML). But it takes time to architect, procure and deploy the right infrastructure. Testing and tuning can be difficult and time-consuming. It's time-intensive and complex to manage and maintain each and every implementation while the queue for new projects continues to grow.

Don't confine your data to a single hub or cloud. Validated Designs for Analytics make all your data available to the entire business with solutions that span edge, core and multi-cloud environments. Dell Technologies customers report that it takes them hours or days to deploy new solutions instead of weeks or months,[5] they are able to manage five billion records from 40 different systems in a single view,[6] and that they achieve 120:1 efficiency gains.[7] Dell APEX Data Center Utility combines Dell's market-leading solutions with professional services and support to fully manage your data center and its operations in a simple, single-invoice monthly payment based on your actual usage.

[2] Dell Technologies case study, Trintech drives 3X revenue growth with Dell EMC PowerEdge servers for Microsoft SQL, accessed December 2021.

[3] Dell Technologies case study, Advancing healthcare analytics and saving lives, January 2021.

[4] Dell Technologies infographic, In today's race, milliseconds count, April 2021.

[5] Dell Technologies case study, Trintech drives 3X revenue growth with Dell EMC PowerEdge servers for Microsoft SQL, accessed December 2021.

[6] Dell Technologies case study, Informatica: Building a 360 customer view with a modern data platform, accessed December 2021.

[7] Dell Technologies case study, Automated railcar inspections increase security and revenue with AI at the edge, February 2021.

Protect and secure digital assets.

Varonis reports 3,950 confirmed data breaches in a single year,[8] and the impact of cyber-attacks on business data can be devastating. Secure operations are essential for protecting data — and the business. To keep pace with the threats your organization faces today, a new approach is required that can adapt to unexpected changes, with intelligence, automation and security built into everything.

Reduce risks and secure your data assets as they move across heterogenous environments with the advanced security of Dell Validated Designs for Analytics. Dell PowerProtect Backup Service helps you enforce governance while reducing cost and complexity. Plus, Dell is #1 in Data Protection Appliance and Software.[9] And whether you want to leverage cloud now or in the future, only Dell Technologies offers 100% cloud-enabled data protection and backup solutions. Our Future-Proof Loyalty Program provides peace of mind and investment protection with Dell Storage and Data Protection.

Dell Technologies is #1 in Data Protection Appliance and Software.

> "Our partnership with Dell Technologies allows us to take advantage of the full breadth and depth of their compute, storage, networking and security solutions… to adapt to ever-changing business needs."
>
> — David J. Brzozowski Jr, Chief Technology Officer, Medacist®[10]

Dell Technologies Solutions

The expertise, technology and partnerships to advance the state of the art for analytics

Dell Technologies is helping expand the boundaries of this exciting new frontier with analytics solutions designed to help you solve complex problems faster than ever. In fact, we're one of the only companies in the world with a portfolio for analytics that spans workstations, servers, networking, storage and services, including multiple engineering-Validated Designs for Analytics.

Validated Designs for Analytics

Validated Designs for Analytics are designed to help you throughout your digital transformation journey. They enable you to get started with your first project — quickly and simply — or to create greater value for more sophisticated analytics projects. Our approach provides choice in how you acquire and deploy technology to support analytics use cases and workloads.

- Boomi® Data Catalog and Preparation enables a broader user community to derive business value from practically any combination of enterprise data sources, without learning to program.
- Cloudera® Data Platform (CDP) is a cost effective, future ready design that is easy to implement and helps efficiently harness the power of analytics to drive competitive advantage.
- DataStax® Enterprise on Apache Cassandra provides a distributed database that enables using Kubernetes to transform legacy applications into modern, scalable applications.
- Edge Analytics for Industry 4.0 is designed to help you discover associations and understanding from the patterns and trends within industrial IoT data.
- Real-time Data Streaming helps reduce the time, effort and resources spent on architecting real-time data pipelines and streaming apps.

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[8] Varonis, 98 Must-Know Data Breach Statistics for 2021, April 2021.

[9] Based on combined revenue from the IDC 3Q20 Purpose-Built Backup Appliance (PBBA) Tracker, with select Storage Software segments from the 3Q20 Storage Software and Cloud Services Overview.

[10] Dell Technologies case study, Medacist Advances Healthcare Analytics with AI running on Dell EMC PowerEdge and PowerScale, January 2021.

5 minutes
instead of 24 hours
for analytics results[11]

Millions of dollars
in savings due to
holding up 99.99%
of service-level
agreements[11]

13% savings
using Dell PowerEdge
servers[11]

- rENIAC Data Engine for Cassandra NoSQL adds significant performance to Apache Cassandra® databases while removing complexity.
- Spark® on Kubernetes® is a tested, validated design for leveraging Kubernetes to manage infrastructure for Apache® Spark analytics.
- Splunk® Enterprise enables you to search, analyze and visualize massive streams of machine data to deliver real-time visibility across the entire business.
- VMware Tanzu™ Greenplum® provides a flexible, all-in-one solution for collecting and analyzing massive amounts of data at speed that is cost-effective, easy to build and simple to manage.

Product Highlights

- Omnia software is an open source, Ansible®-based software stack designed to automate the deployment of mixed-workload clusters, giving IT the agility to run AI, HPC and analytics workloads in the same environment, with a single pane of glass for cluster provisioning, deployment and management, with easy-to-use point-and-click templates for building complete environments.
- PowerEdge servers are engineered to deliver unmatched performance and versatile configurations to meet the demands of analytics workloads. Flash storage, the latest processors and memory with flexible local storage make Dell PowerEdge servers a foundational choice for analytics.
- PowerFlex storage is software-defined to enable transformational agility for organizations looking to modernize their datacenter operations. PowerFlex enables extreme flexibility, massive scalability and enterprise-class performance and resiliency while simplifying infrastructure management and operations.
- PowerScale storage provides the large, scalable, reliable and efficient storage that analytics environments require. With support for multiple workloads and enterprise-grade data and file management capabilities out of the box, Dell PowerScale scale-out NAS is the leading storage for analytics. You can take advantage of the high capacity of PowerScale to reduce the acquisition and ownership cost for managing and monetizing data using advanced or predictive analytics and machine learning.
- PowerSwitch networking frees the data center from outdated, proprietary approaches. Our future-ready networking technology helps you improve network performance, lower networking costs and remain flexible to adopt new innovations. Take control of your network's future and learn how the Dell Technologies strategy for open networking can dramatically transform your business.
- VxRail is a pre-configured and pre-tested VMware® hyperconverged infrastructure (HCI) appliance, powered by industry-leading VMware vSAN™ and vSphere® software. The VxRail appliance streamlines and extends the VMware environment while dramatically simplifying IT operations with a known and proven building block for the software-defined data center.

APEX

APEX Cloud Services offer integrated compute, storage, networking and virtualization resources that enable consistent, secure infrastructure and operations for your workloads across public and private clouds. With a simple way to order and manage cloud resources, you can now easily build the cloud of your choice with solutions tailored for your most pressing business needs.

APEX Custom Solutions let you create your own on-demand environment with infrastructure and services you customize to order. Apex Flex on Demand allows you to pay only for the technology you need, with payments that adjust up or down to match usage. Apex Data Center Utility is a highly customizable way to move data center operations into a pay-per-use model. It provides Dell Technologies' market-leading product portfolio coupled with professional services and support to fully manage your data center and its operations in a simple, single-invoice monthly payment based on your actual usage.

With APEX Infrastructure Services you can benefit from resources that are owned and maintained by Dell Technologies, so you can focus on high-value priorities. Get the technology you need in a fraction of the time and scale resources on demand. As part of this service, APEX Data Storage Services is an as-a-Service portfolio of scalable and elastic storage resources built on our industry-leading technologies.

Analytics experience and capabilities

Dell Technologies is committed to advancing analytics. We offer a range of opportunities for you to engage with our experts to start unlocking the value of your data capital.

Customer Solution Centers

Our global network of dedicated Dell Technologies Customer Solution Centers are trusted environments where world class IT experts collaborate with you to share best practices, facilitate in depth discussions of effective business strategies, and help your business become more successful and competitive. Customer Solution Centers help reduce the risks associated with new technology investments and can help improve speed and ease of implementation.

AI Experience Zones

Curious about AI and what it can do for your business? Run demos, try proofs of concept and pilot software in Singapore, Seoul, Sydney, Bangalore and other Customer Solution Centers. Dell Technologies experts are available to collaborate and share best practices as you explore the latest technology and get the information and hands-on experience you need for your advanced computing workloads.

HPC & AI Innovation Lab

The HPC & AI Innovation Lab in Austin, Texas, is the flagship innovation center. Housed in a 13,000-square-foot data center, it gives you access to thousands of Dell servers, three powerful HPC clusters and sophisticated storage and network systems. It's staffed by a dedicated group of computer scientists, engineers and subject matter experts who actively partner and collaborate with customers and other members of the HPC community. The team engineers HPC and AI solutions, tests new and emerging technologies, and shares expertise including performance results and best practices.

HPC & AI Centers of Excellence

As analytics, HPC and AI converge and the technology evolves, Dell Technologies worldwide HPC & AI Centers of Excellence provide thought leadership, test new technologies and share best practices. They maintain local industry partnerships and have direct access to Dell and other technology creators to incorporate your feedback and needs into their roadmaps. Through collaboration, Dell Technologies HPC & AI Centers of Excellence provide a network of resources based on the wide-ranging know-how and experience in the community.

Services and financing for analytics and AI

Dell Technologies is with you every step of the way, linking people, processes and technology to accelerate innovation and enable optimal business outcomes.

- Analytics Consulting Services help you create a competitive advantage for your business. Our expert consultants work with companies at all stages of analytics to help you plan, implement and optimize solutions that enable you to unlock your data capital and support advanced techniques, such as AI and ML.

- Deployment Services help you streamline complexity and bring new IT investments online as quickly as possible. Leverage our 30 plus years of experience for efficient and reliable solution deployment to accelerate adoption and return on investment while freeing IT staff for more strategic work.

- Support Services driven by AI and deep learning will change the way you think about support with smart, groundbreaking technology backed by experts to help you maximize productivity, uptime and convenience. Experience more than fast problem resolution — our AI engine proactively detects and prevents issues before they impact performance.

- Payment Solutions from Dell Financial Services help you maximize your IT budget and get the technology you need today. Our portfolio includes traditional leasing and financing options, as well as advanced flexible consumption products.

- APEX offers a simple approach that gives you a wide range of consumption models, payment solutions and services so you can optimize for a variety of factors while realizing more predictable outcomes.

- Managed Services can help reduce the cost, complexity and risk of managing IT so you can focus your resources on digital innovation and transformation while our experts help optimize your IT operations and investment.

- Residency Services provide the expertise needed to drive effective IT transformation and keep IT infrastructure running at its peak. Resident experts work tirelessly to address challenges and requirements, with the ability to adjust as priorities shift.

Additional resources and information

Visit our solutions page:
delltechnologies.com/analytics

Technical documents

Visit the Infohub.

Take the next step.

Wherever you are on your analytics journey, Dell Technologies is here to help, with the solutions and expertise you need to unlock the value of your data capital.

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